

ABSTRACT**ANTENNA DIVERSITY RECEIVER**

5 An antenna diversity receiver comprises a zero-IF receiver connected to two antennas (102a, 102b) via switches (532,534). Simultaneous measurement of signal qualities from both antennas is possible by routing signals from the first antenna (102a) via a first mixer (106) and channel filter (116) and routing signals from the second antenna (102b) via a second mixer
10 (108) and channel filter (118). A diversity controller (536) compares the signal qualities received from the antennas (102a,102b) during a data preamble to select a preferred antenna, then adjusts the switches (532,534) to route the signals from the preferred antenna to both input mixers (106,108). The amplifier (104a,104b) connected to the deselected antenna may be switched
15 off during data reception, thereby minimising extra power consumption.

Such an antenna diversity receiver enables effective antenna selection to be performed, even in systems such as Bluetooth where only a very short preamble is provided for receiver configuration.

20 (Figure 5)